CONTENTS

Volume 1, Issue Nos. 1-4

EARTH SURFACE PROCESSES

Issue No. 1 APRIL 1976

R. R. Arnett: Some Pedological Features Affecting the Permeability of Hillside Soils in Caydale, Yorkshire	3
E. Derbyshire, A. McGown and A. Radwan: 'Total' Fabric of some Till Landforms	17
M. Klein: Hydrograph Peakedness and Basin Area	27
S. T. Trudgill: The Erosion of Limestones Under Soil and the Long Term Stability of Soil-Vegetation Systems on Limestones	31
I. Statham: A Scree Slope Rockfall Model	43
C. B. Curtis: Stability of Minerals in Surface Weathering Reactions	63
K. Richards: The Morphology of Riffle-Pool Sequences	71
SHORT COMMUNICATIONS	
M. A. Summerfield: Slope Form and Basal Stream Relationships: A Case Study	89
Book Reviews	95
Issue No. 2, APRIL-JUNE 1976	
R. J. Huggett: Lateral Translocation of Soil Plasma Through a Small Valley Basin in the Northaw Great Wood, Hertfordshire	99
M. Day: The Morphology and Hydrology of some Jamaican Karst Depressions	111
R. J. Bennett: Adaptive Adjustment of Channel Geometry	131
J. de Ploey, J. Savat and J. Moeyersons: The Differential Impact of some Soil Loss Factors on Flow, Runoff Creep and Rainwash	151
I. Smalley: Factors Relating to the Landslide Process in Canadian Quickclays	163
I. Statham: Debris Flows on Vegetated Screes in the Black Mountain, Carmarthenshire	173
I A Catt and I M Hodgson: Soils and Geomorphology of the Chalk in South Fast England	181

Issue No. 3. JULY-SEPTEMBER 1976

M. J. Kirkby: Tests of the Random Network Model, and its Application to Basin Hydrology	197
M. G. Anderson: An Inexpensive Circuit Design for the Acoustic Detection of Oscillations in Bedload Transport in Natural Streams	213
J. S. Smart and C. Werner: Applications of the Random Model of Drainage Basin Composition	219
A. Yair and H. Lavee: Runoff Generative Process and Runoff Yield from Arid Talus Mantled Slopes	235
R. Radok: Air-Sea-River Interactions	249
A. C. Imeson and P. D. Jungerius: Aggregate Stability and Colluviation in the Luxembourg 'Ardennes; An Experimental and Micromorphological Study	259
K. J. Gregory: Lichens and the Determination of River Channel Capacity	273
B. H. Luckman: Rockfalls and Rockfall Inventory Data: Some Observations from Surprise Valley, Jasper National Park, Canada	287
SHORT COMMUNICATIONS	
Book Reviews	299
Issue No. 4, OCTOBER-DECEMBER 1976	
J. S. Bridge and J. Jarvis: Flow and Sedimentary Processes in the Meandering River South Esk, Glen Clova, Scotland	303
R. I. Ferguson: Disturbed Periodic Model for River Meanders	337
T. P. Burt and P. J. Williams: Hydraulic Conductivity in Frozen Soils	349
J. R. L. Allen: Bed Forms and Unsteady Processes: Some Concepts of Classification and Response Illustrated by Common One-Way Types	361
G. C. Lusby and T. J. Toy: An Evaluation of Surface-mine Spoils Area Restoration in Wyoming Using Rainfall Simulation	375
SHORT COMMUNICATIONS	
Book Reviews	387
Table of Contents, Volume I	391
Author Index	
	393

AUTHOR INDEX, VOLUME 1

- Allen, J. R. L.: Bed forms and unsteady processes: some concepts of classification and response illustrated by common one-way types, 361
- Anderson, M. G.: An inexpensive circuit design for the acoustic detection of oscillations in bedload transport in natural streams, 213
- Arnett, R. R.: Some pedological features affecting the permeability of hillside soils in Caydale, Yorkshire, 3
- Bennett, R. J.: Adaptive adjustment of channel geometry, 131
- Bridge, J. S. and Jarvis, J.: Flow and sedimentary processes in the meandering River South Esk, Glen Clova, Scotland, 303
- Burt, T. P. and Williams, P. J.: Hydraulic conductivity in frozen soils, 349
- Catt, J. A. and Hodgson, J. M.: Soils and geomorphology of the Chalk in South East England, 181
- Curtis, C. D.: Stability of minerals in surface weathering reactions: a general thermochemical approach, 63
- Day, M.: The morphology and hydrology of some Jamaican karst depressions, 111
- Derbyshire E., McGown, A. and Radwan, A.: 'Total' fabric of some till landforms, 17
- de Ploey, J., Savat, J. and Moeyersons, J.: The differential impact of some soil loss factors on flow, runoff creep and rainwash, 151
- Ferguson, R. I.: Disturbed periodic model for river meanders, 337
- Gregory, K. J.: Lichens and the determination of river channel capacity, 273
- Hodgson, J. M.: see Catt, J. A., 181
- Huggett, R. J.: Lateral translocation of soil plasma through a small valley basin in the Northaw Great Wood, Hertfordshire, 99
- Imeson, A. C. and Jungerius, P. D.: Aggregate stability and colluviation in the Luxembourg Ardennes; an experimental and micromorphological study, 259

- Jarvis, J.: see Bridge, J. S., 303 Jungerius, P. D.: see Imeson, A. C., 259
- Kirkby, M. J.: Tests of the random network model, and its application to basin hydrology, 197
- Klein, M.: Hydrograph peakedness and basin area, 27
- Lavee, H.: see Yair, A., 235
- Luckman, B. H.: Rockfalls and rockfall inventory data: some observations from Surprise Valley, Jasper National Park, Canada, 287
- Lusby, G. C. and Toy, T. J.: An evaluation of surfacemine spoils area restoration in Wyoming using rainfall simulation, 375
- McGown, A.: see Derbyshire, E., 17 Moeyersons, J.: see de Ploey, J., 151
- Radok, R.: Air-sea-river interactions, 249
- Radwan, A.: see Derbyshire, E., 17
- Richards, K. S.: The morphology of riffle-pool sequences, 71
- Savat, J.: see de Ploey, J., 151
- Smalley, I.: Factors relating to the landslide process in Canadian quickclays, 163
- Smart, J. S. and Werner, C.: Applications of the random model of drainage basin composition, 219
- Statham, I.: A scree slope rockfall model, 43; and Debris flows on vegetated screes in the Black Mountain, Carmarthenshire, 173
- Summerfield, M. A.: Slope form and basal stream relationships; a case study, 89
- Toy, T. J.: see Lusby, G. C., 375
- Trudgill, S. T.: The erosion of limestones under soil and the long term stability of soil-vegetation systems on limestones, 31
- Werner, C.: see Smart, J. S., 219
- Williams, P. J.: see Burt, T. P., 349
 - Yair, A. and Lavee, H.: Runoff generative process and runoff yield from arid talus mantled slopes, 235



KEY WORD INDEX, VOLUME 1

Acoustic detection, 213 Adaptive parameter estimation, 131 Annual exceedance series, 273 Annual series, 273 Arid, Sinai, 235 ARMA models, 131

Balance sheet, 99 Bed forms, 361 Bedforms and sedimentary structures, 303 Bedload, 213 Bed material, 131

Calabrian, 181
Chalk, 181
Channel capacity, 273
Channel geometry, 131
Channel networks, 219
Clay at the surface, 375
Clay fabric, 259
Clay-with-flints, 181
Cliffs, 287
Coal mining sites, 375
Colluvium, 259
Concentration of roots, 375
Cropping factor, 151
Curved channel flow, 303

Debris cover, 151 Delayed responses, 361 Discharge, 89 Dissolution, 181 Drainage basins, 219

Electronics, 213 Experimental plots, 235

Flow, 151 Frequency, 287 Frost heave, 349 Frozen soil, 349

General systems theory, 361 Graded rivers, 131 Grain texture model, 303

Hollow, 99 Hydraulic conductivity, 349 Hydraulic regime, 151 Hydrological variables, 235 Hydrology, 111, 197

Infiltration capacity, 151 Inventory, 287

Jamaica, 111

Karst, 111

Lateral migration and vertical sequences, 303 Lateral translocation, 99 Lichen limit, 273 Lichenometry, 273

Mean slopes, 375 Morphometry, 111

Networks, 197 Nose, 99

Peak discharge, 273 Phase composition, 349 Point bar sedimentation, 303

Rainfall simulator, 375
Rainsplash, 259
Rainwash, 151
Recurrence intervals, 273
Rehabilitation, 375
Restored spoils area, 375
Reynolds number, 151
River long profile, 131
Rockfalls, 287
Roughness, 151
Runoff, 375
Runoff creep, 151
Runoff discharge, 151
Runoff generation, 235
Runoff yield, 235

Seasonality, 287
Sediment yield, 375
Simulated rainstorms, 235
Slope form, 89
Soil aggregates, 259
Soil landscape, 99
Soils and geomorphology, 181
South-east England, 181
Southern Pennines, 89
Spectral analysis, 131
Stochastic models, 219
Stone cover, stone size, 235
Stream magnitude, 89
Streams, 213
Sub-tertiary surface, 181

Talus mantled slopes, 235 Thermodynamics, 349 Three-dimensional, 99 Throughflow, 99 Time series identification, 131 Topology, 197 Unsteady processes, 361 Valley basin, 99

Water tracing, 111



